AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-29. (Cancelled)

30. (New) A welding system for welding an element to a component, the system comprising:

(a) a welding head operably welding the element to the component;

(b) a support foot mounted on the welding head, operably movable in an axial direction between an operating position and a rest position;

(c) a measurer operably measuring a relative position of the component to the element; and

(d) a controller operably determining the relative position of the component relative to the element and commencing the welding of the element to the component.

31. (New) The system according to Claim 30, further comprising a holder operably holding the element in the welding head.

32. (New) The system according to Claim 31, further comprising a linear motion device operably advancing and retracting the holder.

33. (New) The system according to Claim 31, further comprising a position sensor operably measuring the position of the holder relative to the component.

34. (New) The system according to Claim 30, wherein the controller determines the relative position when the element makes contact with the component.

35. (New) The system according to Claim 34, wherein the measurer electrically measures the relative position.

36. (New) The system according to Claim 34, wherein the welding head retracts the element at the contact.

37. (New) The system according to Claim 30, wherein the element is a metal stud and the component is a metal sheet.

38. (New) The system according to Claim 37, wherein the metal stud and the metal sheet are parts of a motor vehicle.

39. (New) The system according to Claim 30, wherein the controller determines the relative position with the foot in the operating position.

40. (New) The system according to Claim 30, wherein the controller determines the relative position with the foot in the rest position.

41. (New) The system according to Claim 30, further comprising a plurality of welding routines stored in the controller determining the relative position of the

component to the element and determining a support foot position during a welding process.

42. (New) The system according to Claim 30, further comprising a robotic arm attached to the welding head.

43. (New) The system according to Claim 42, wherein the robotic arm moves in at least one coordinate axis.

44. (New) The system according to Claim 30, further comprising a plurality of welding heads.

45. A welding apparatus comprising:

(a) a welding head;

(b) a movable foot mounted to the welding head;

(c) the movable foot operably movable from a rest position to an operable position;

(d) a controller operably storing at least one welding routine;

(e) the controller operably controlling the welding head;

(f) the controller operably determining a movable foot position;

(g) a measurer operably measuring a relative distance; and

(h) the controller operably selecting the welding routine and commencing welding based on the welding routine.

46. (New) The apparatus according to Claim 45, wherein the element and the component are parts of a motor vehicle.

47. (New) The apparatus according to Claim 45, further comprising the measuring of the relative distance when there is a physical contact between the element and the component.

48. (New) The apparatus according to Claim 45, further comprising the measuring of the relative distance when there is an electrical contact between the element and the component.

49. (New) The apparatus according to Claim 45, wherein the controller determines whether the movable foot is in an operation or a rest position.

50. (New) A method for welding an element to a component using a welder comprising a movable foot, the method comprising:

(a) storing a plurality of welding routines in the controller;

(b) moving a welding head to a location as determined by one of the plurality of welding routines;

(c) determining whether the movable foot is in an operable position or a rest position;

(d) measuring a position of the element relative to the component; and

(e) welding the element to the component as determined by the one of the plurality of welding routines.

51. (New) The method according to Claim 50, further comprising measuring the position on physical contact of the element to the component.

52. (New) The method according to Claim 50, further comprising measuring the position on electrical contact of the element to the component.

53. (New) The method according to Claim 50, further comprising holding the element.

54. (New) The method according to Claim 53, further comprising lowering and releasing the element.

55. (New) The method according to Claim 50, further comprising operating a robotic arm operably moving the welding head.

56. (New) The method according to Claim 50, further comprising controlling at least one of the group select from welding head location, element lowering speed, arc voltage, robotic arm movement, and element position relative to the component.

57. (New) The method according to the Claim 56, wherein the controlling is accomplished by employing at least one of the plurality of welding routines in the controller.

58. (New) The method according to Claim 57, further comprising loading the element into the welding head.